

REMARKS

I. Introduction

Claims 55 to 126 are pending in the present application. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration is respectfully requested.

II. Objections to Abstract

With regard to the Examiner's objection to the Abstract, the Examiner will note that the Abstract has been amended herein without prejudice to conform to the required format.

III. Request for Specification

The Examiner requested that the Specification be updated to reflect the status of the parent application. Applicant has amended the Specification herein without prejudice to include the issued patent number.

IV. Rejection of Cl. 55 to 64, 66 to 67, 69 to 78, 80 to 81, 83 to 92, 94 to 95, 97 to 105, 107 to 108, 110 to 117, 119 and 121 to 126 Under 35 USC §102(b)

Claims 55 to 64, 66 to 67, 69 to 78, 80 to 81, 83 to 92, 94 to 95, 97 to 105, 107 to 108, 110 to 117, 119 and 121 to 126 were rejected under 35 U.S.C. 102(b) as anticipated by German Patent No. 3435883 ("Heilmann et al."). Applicants respectfully submit that Heilmann et al. do not anticipate the present claims for the following reasons.

Claim 55 relates to an end cap for a filter device. Claim 55 recites that the end cap includes a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction. Claim 55 has been amended herein without prejudice to recite that the end cap includes at least one curved member extending from and located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction. Support for this amendment can be found, for instance, at page 11, lines 2 to 4 of the Specification that "ribs 14 ... are arranged with a curvature."

Claim 69 relates to a filter device. Claim 69 recites that the filter device includes a casing for housing a filter element. Claim 69 also recites that the filter device includes an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction. Claim 69 has been amended herein without prejudice to recite that the end cap includes at least one curved member extending from and located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

Claim 83 relates to an end cap for a filter device. Claim 83 recites that the end cap includes a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap. Claim 83 also recites that the end cap includes at least one member extending from and located within the interior chamber of the end cap, the at least one member configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

Claim 97 relates to a filter device. Claim 97 recites that the filter device includes a casing for housing a filter element. Claim 97 also recites that the filter device includes an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, the channel defining a fluid flow path in a first direction, and at least one member extending from and located within the interior chamber of the end cap, the at least one member configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

Claim 110 relates to a hemodialyzer device. Claim 110 recites that the hemodialyzer device includes a casing forming a housing, the casing having a blood outlet channel. Claim 110 also recites that the hemodialyzer device includes a hollow fiber bundle stored within the casing. Claim 110 further recites that the hemodialyzer device includes an end cap attachable to the casing, the end cap including a blood inlet channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, the channel defining a fluid flow path in a first direction, and a plurality of curved members extending from and located within the interior chamber of the end cap, the at least one member defining, for a

fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

Claim 121 relates to a method for filtering a fluid. Claim 121 recites that the method includes the step of passing the fluid through a filter device, the filter device including a casing for housing a filter element and an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap, a portion of the channel adjacent to the interior chamber defining a fluid flow path in a first direction, and at least one member extending from and located within the interior chamber of the end cap defining, for a fluid exiting the channel and flowing into the interior chamber of the end cap, a fluid flow path in a second direction different from the first direction.

Claim 124 relates to a method for filtering a fluid. Claim 124 recites that the method includes the step of passing the fluid through a filter device, the filter device including a casing for housing a filter element and an end cap attachable to the casing, the end cap including a channel providing fluid communication from an exterior of the end cap to an interior chamber of the end cap. Claim 124 has been amended to recite that the filter device includes at least one member defined by and located within the interior chamber of the end cap. Support for this amendment can be found, for instance, in Figure 12, which illustrates spaces between the curved members that are defined by the interior chamber of the end cap. Claim 124 also recites that the at least one member is configured to impart a circular motion to fluid exiting the channel and flowing into the interior chamber of the end cap.

It is respectfully submitted that Heilmann et al. do not anticipate the present claims for at least the reason that Heilmann et al. fail to disclose, or even suggest, all of the claimed features of each claim. For instance, it is respectfully submitted that Heilmann et al. fail to disclose, or even suggest, at least one curved member extending from and located within the interior chamber of the end cap as recited in claims 55, 69 and 121. Furthermore, it is respectfully submitted that Heilmann et al. fail to disclose, or even suggest, at least one member extending from and located within the interior chamber of the end cap as recited in claims 83 and 97. Also, it is respectfully submitted that Heilmann et al. fail to disclose, or even suggest, a plurality of curved members extending from and located within the interior chamber of the end cap as recited in claim 110. Furthermore, it is respectfully

submitted that Heilmann et al. fail to disclose, or even suggest, at least one member defined by and located within the interior chamber of the end cap as recited in claim 124.

In contrast, Heilmann et al. seems to disclose in Figures 1 to 3 a flat, perforated disk 56 that is interposed between the inlet side 28 of an end cap 30, e.g., having a neck 26, and an outlet side 32 of the end cap 30, e.g., in which a filter element 20 is located. The flat disk 56 has guiding means 50 located on a surface facing the inlet side 28 of the end cap 30. As shown in Figure 1 and 3, these guiding means 50 are spaced apart from the interior chamber of the end cap. Therefore, these guiding means 50 do not extend from the interior chamber of the end cap as recited in claims 55, 69, 83, 97, 110 and 121, but rather extend from the flat disk 56. Furthermore, these guiding means 50 are not defined by the interior chamber of the end cap as recited in claim 124, but rather are defined by the flat disk 56.

To anticipate a claim, each and every element as set forth in the claim must be found in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989). That is, the prior art must describe the elements arranged as required by the claims. In re Bond, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). As more fully set forth above, it is respectfully submitted that Heilmann et al. do not disclose, or even suggest, all of the features recited in claims 55, 69, 83, 97, 121 and 124.

Additionally, to reject a claim under 35 U.S.C. § 102, the Examiner must demonstrate that each and every claim limitation is contained in a single prior art reference. See, Scripps Clinic & Research Foundation v. Genentech, Inc., 18 U.S.P.Q.2d 1001, 1010 (Fed. Cir. 1991). Still further, not only must each of the claim limitations be identically disclosed, an anticipatory reference must also enable a person having ordinary skill in the art to practice the claimed invention, namely the inventions of the rejected claims, as discussed above. See, Akzo, N.V. v. U.S.I.T.C., 1 U.S.P.Q.2d 1241, 1245 (Fed. Cir. 1986). In particular, it is respectfully submitted that, at least for the reasons discussed above, the reference relied upon would not enable a person having ordinary skill in the art to practice the inventions of the rejected claims, as discussed above. Also, to the extent that the Examiner is relying

on the doctrine of inherency, the Examiner must provide a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flows from the teachings of the applied art." See M.P.E.P. § 2112; emphasis in original; and see, Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). Thus, the M.P.E.P. and the case law make clear that simply because a certain result or characteristic may occur in the prior art does not establish the inherency of that result or characteristic. Accordingly, the anticipation rejection as to the rejected claims must necessarily fail for the foregoing reasons.

In summary, it is respectfully submitted that Heilmann et al. do not anticipate claims 55, 69, 83, 97, 121 and 124.

As for claims 56 to 64, 66 and 67, which ultimately depend from and include all of the limitations of claim 55, claims 70 to 78, 80 and 81, which ultimately depend from and include all of the limitations of claim 69, claims 84 to 92, 94 and 95, which ultimately depend from and include all of the limitations of claim 83, claims 98 to 105, 107 and 108, which ultimately depend from and include all of the limitations of claim 97, claims 111 to 117 and 119, which ultimately depend from and include all of the limitations of claim 110, claims 122 and 123, which ultimately depend from and include all of the limitations of claim 121, and claims 125 and 126, which ultimately depend from and include all of the limitations of claim 124, it is respectfully submitted that Heilmann et al. do not anticipate these dependent claims for at least the same reasons given above in support of the patentability of claims 55, 69, 83, 97, 110, 121 and 124.

V. Rejection of Claims 55 to 65, 67, 69 to 71, 76 to 79, 81 and 121 Under 35 U.S.C. § 102(b)

Claims 55 to 65, 67, 69 to 71, 76 to 79, 81 and 121 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,304,312 ("Forster et al."). Applicants respectfully submit that Forster et al. do not anticipate the present claims for the following reasons.

It is respectfully submitted that Forster et al. do not anticipate claims 55, 69 and 121 for at least the reason that Forster et al. do not disclose, or even suggest, all of the features recited in claims 55, 69 and 121. For example, Forster et al. fail to disclose, or even suggest, at least one curved member extending from

and located within the interior chamber of the end cap as recited in claims 55, 69 and 121. Rather, Forster et al. describe "a plurality of internal ribs or fins extend radially..." Column 6, lines 20 to 21, emphasis added. These ribs or fins 88, as well as the ribs or fins 288 that are illustrated in Figures 14 to 16, are not curved.

Therefore, for at least the reasons stated above, it is respectfully submitted that Forster et al. do not anticipate claims 55, 69 and 121.

As for claims 56 to 65 and 67 which ultimately depend from and include all of the limitations of claim 55, and claims 70 to 71, 76 to 79 and 81 which ultimately depend from and include all of the limitations of claim 69 it is respectfully submitted that Forster et al. do not anticipate these dependent claims for at least the same reasons given above in support of the patentability of claims 55 and 69.

VI. Rejection of Claims 65, 79, 93, 106 and 118 Under 35 U.S.C. § 103(a)

Claims 65, 79, 93, 106 and 118 were rejected under 35 U.S.C. § 103(a) as unpatentable over Heilmann et al. in view of Forster et al. Applicants respectfully submit that the combination of Heilmann et al. and Forster et al. do not render obvious the present claims for the following reasons.

It is respectfully submitted that the combination of Heilmann et al. and Forster et al. does not disclose, or even suggest, all of the limitations recited in claims 65 and 79. For instance, claims 65 and 79 depend from claims 55 and 69, respectively, and therefore include all of the limitations of these claims. As stated above, it is respectfully submitted that Heilmann et al. fail to disclose, or even suggest, at least one curved member extending from and located within the interior chamber of the end cap as recited in claims 55 and 69. Forster et al. are not relied upon to disclose or suggest, and in fact does not disclose or suggest, the limitations of claims 55 and 69 that are not disclosed or suggested by Heilmann et al. Rather, as set forth above, Forster et al. describe ribs or fins 88, and ribs or fins 288, that are not curved.

Furthermore, it is respectfully submitted that the combination of Heilmann et al. and Forster et al. does not disclose, or even suggest, all of the limitations recited in claims 93 and 106. For instance, claims 93 and 106 depend from claims 83 and 97, respectively, and therefore include all of the limitations of these claims. As stated above, it is respectfully submitted that Heilmann et al. fail to

disclose, or even suggest, at least one member extending from and located within the interior chamber of the end cap as recited in claims 83 and 97. Forster et al. is not relied upon to disclose or suggest, and in fact does not disclose or suggest, the limitations of claims that are not disclosed or suggested by Heilmann et al.

Also, it is respectfully submitted that the combination of Heilmann et al. and Forster et al. does not disclose, or even suggest, all of the limitations recited in claim 118. For instance, claim 118 depends from claim 110 and therefore includes all of the limitations of this claim. As stated above, it is respectfully submitted that Heilmann et al. fail to disclose, or even suggest, a plurality of curved members extending from and located within the interior chamber of the end cap as recited in claim 110. Forster et al. is not relied upon to disclose or suggest, and in fact does not disclose or suggest, the limitations of claim 110 that are not disclosed or suggested by Heilmann et al.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a prima facie case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish prima facie obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. In re Fine, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. In re Vaeck, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). Second, there must be a reasonable expectation of success. In re Merck & Co., Inc., 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. In re Royka, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Thus, for claims 65, 79, 93, 106 and 118, which depend from and therefore include all of the limitations of claims 55, 69, 83, 97 and 110, respectively, it is respectfully submitted that the combination of Heilmann et al. and Forster et al. does not render obvious these dependent claims for at least the same reasons given above in support of the patentability of claims 55, 69, 83, 97 and 110, respectively.

In re Fine, supra (any claim that depends from a non-obvious independent claim is non-obvious).

VII. Allowable Subject Matter

Applicants note with appreciation the indication of allowable subject matter contained in claims 68, 82, 96, 109 and 120. In this regard, the Examiner will note that each of claims 68, 82, 96, 109 and 120 has been amended herein to include all of the limitations of its respective base claim and any intervening claims. It is therefore respectfully submitted that claims 68, 82, 96, 109 and 120 as amended herein are in condition for immediate allowance.

VIII. Conclusion

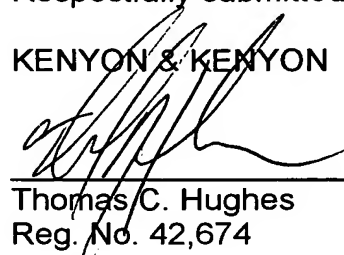
It is therefore respectfully submitted that all of the presently pending claims are allowable. All issues raised by the Examiner having been addressed, an early and favorable action on the merits is earnestly solicited.

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Respectfully submitted,

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